50% reduction in seizures. The mean utility value of patients who prematurely discontinued treatment (n = 50) was 0.846 (VAS = 64.89). **CONCLUSIONS:** More frequent epilepsy seizures were associated with lower utility values in this prospective study of patients with active epilepsy. In addition, patients who became seizure-free on treatment reported higher utility gains than those who failed to respond. Better seizure control may result in utility gains in epilepsy patients.

NEUROLOGICAL DIESEASES/DISORDERS & PAIN—Healthcare Policy

PNP16

MEDICATION USE IN PATIENTS WITH LOW BACK PAIN: DATA FROM MANAGED CARE

Harley C[1], Wagner S[2], Nelson M[1]
[1]Ingenix, Eden Prairie, MN, USA; [2]Pharmacia Corporation, Peapack, NJ, USA

OBJECTIVES: Low back pain is a serious problem that results in lost time from work and reduced quality of life. The annual cost of low back pain in the United States is estimated to be billions of dollars. The primary objective of this study was to characterize the most commonly used drug therapies for treatment of low back pain in a managed care organization (MCO). **METHODS:** We performed a retrospective analysis on enrollment, medical, and pharmacy claims data from 19 discounted, fee-for-service, independent practice association model plans affiliated with a large MCO. Commercial members with a claim for low back pain identified by appropriate ICD-9 codes during a specified 6-month period were included for analysis. Results were stratified based on the following treatment patterns: new treatment, ongoing treatment, and no treatment. **RESULTS:** About half of the 96,024 diagnosed patients did not fill a prescription, and the new and ongoing treatment groups were about evenly split. Mean age was 42 years, with 46.7% male. About half of subjects received >1 drug. In both the new and ongoing groups hydrocodone/acetaminophen was the most common pain medication for both groups, prescribed in 27.7% and 41.2% of cases, respectively. Naproxen was the second most prescribed drug for newly treated patients (25.8%) and cyclopbenzaprine (21%) the second most prescribed drug in the ongoing group. Oxycodone/acetaminophen was used in 7.6% of the newly treated patients and in 13% of the ongoing group. Oxycodone was used in 8.1% of the ongoing group, but was not among the top 20 drugs prescribed in the newly treated group. **CONCLUSIONS:** We observed titration in treatment for pain in the ongoing users who switched to more potent, long-acting medications to control their low back pain. The increased utilization of narcotic analgesics could have significant quality of care, productivity, disability, and cost implications.

PNP17

COMPLIANCE OF TWO TREATMENTS OF ALZHEIMER'S DISEASE

Barbeau M, Baladi JF
Novartis Pharma Canada Inc, Dorval, QC, Canada

OBJECTIVE: Compliance with Alzheimer's Disease (AD) medication is an important determinant of their effectiveness. This study tests whether differences in compliance were observed with two AD medications that have different administration schedules (od versus bid). **METHOD:** Data for first-time users of donepezil and rivastigmine between October 1, 2000 and March 31, 2002 were extracted from the Quebec Health Insurance Board database. Two cohorts were identified: rivastigmine and donepezil. Information on sex, age and compliance was gathered at 3, 6, 9 and 12 month following their first prescription. Compliance was measured by using the total number of days covered by patients' prescriptions within the 3, 6, 9 or 12 month period. If patients consumed at least 80% of their medication they were assumed to be compliant. Statistical difference at 95% between the proportions in each group was assessed. **RESULTS:** A total of 6267 patients (69% of women) with a mean age of 78.6 in the donepezil cohort and 773 (48% of women) with a mean age of 77.3 in the rivastigmine group were identified. At month 3, no statistical difference (CI: –0.82–0.88) in compliance between donepezil (77.6%) and rivastigmine (74.6%) was detected. The same conclusion was reached for the analysis at month 6, 9 and 12. Of note, a large decrease in the compliance in both groups was observed from month 3 to month 12. However, the trend is very similar in both groups. **CONCLUSION:** No statistically significant difference in compliance was observed between patients on rivastigmine and donepezil. Furthermore, no difference in the compliance trend (from month 3 to 12) in both groups was observed. Finally, compliance with AD medication did not seem to differ depending of the administration schedules (od versus bid).

PNP18

FORMULARY DECISION SUPPORT FOR INTERFERON-BETA-1A USING ANALYSIS OF CARE-SEEKING BEHAVIOR FOR MULTIPLE SCLEROSIS

Meyer C[1], Phipps R[2], Cooper D[1], Neff S[1], Wright A[1]
[1]AdvancePCS, Hunt Valley, MD, USA; [2]Serono, Inc, Rockland, MA, USA

OBJECTIVE: To estimate the incremental pharmacy PMPM change according to various formulary designs for interferon-beta-1a using administrative claims data **METHODS:** Cross-sectional sex- and age-specific disease prevalence and treatment rates for multiple sclerosis (MS) patients were measured using integrated medical and pharmacy claims data from a 508,066-member employer

group in the southern U.S. Migration to interferon-beta-1a from competitors was based on market-share data for new and existing MS patients. Duration of therapy was estimated by analyzing claims for current MS therapies. Daily therapy cost was provided by the manufacturer, adjusted for migration from other therapies, and multiplied by estimated volume to predict incremental and total per-member, per-month (PMPM) impact. Market-share estimates were used to develop a PMPM forecast for the next two years. PMPM estimates were calculated for preferred and non-preferred formulary tier designs with and without prior authorization (PA). One-way sensitivity analysis was performed to assess influence of product pricing, duration of therapy, and other market factors. **RESULTS:** Annual incremental PMPM change was $0.047 for the third co-payment tier with PA scenario. The incremental change was greatest for those aged 55 to 65 years ($0.056 PMPM) and did not vary greatly by benefit design. Duration of therapy has the greatest impact on the PMPM estimate across benefit designs. **CONCLUSIONS:** Interferon-beta-1a will not cause a significant change in managed care pharmacy budgets under a variety of formulary conditions, according to this cross-sectional analysis of current care-seeking behavior by MS patients. Economic impact may differ if interferon-beta-1-a expands MS patients' treatment-seeking behavior.

MENTAL HEALTH—Economic Outcomes

PMH1

THE HEALTH CARE COSTS OF SCHIZOPHRENIA IN AUSTRALIA: 18-MONTH FOLLOW-UP RESULTS

Christova L[1], Davey P[1], Jackson D[1], Montgomery W[2], deCastella A[3], Fitzgerald P[3], Brewer K[3], Filia K[3], Collins J[3], Kulkarni J[3]

[1]Medical Technology Assessment Group, Chatswood West, NSW, Australia; [2]Eli Lilly Australia Pty Ltd, West Ryde, NSW, Australia; [3]Dandenong Hospital Dept of Psychiatry, Dandenong, VIC, Australia

OBJECTIVE: Schizophrenia is a chronic condition associated with a significant burden of disease and high health care costs. The Schizophrenia Care and Assessment Program (SCAP) is a naturalistic, observational study that aims to collect information on a range of treatment outcomes (clinical, functional and social) as well as detailed information on health care service utilisation and associated costs. **METHODS:** The Australian arm of this study involves 350 participants recruited from a large regional mental health service in outer Melbourne. Participants are assessed every six months. Health care resource data are collected via a combination of electronic systems, including a national medical and prescription claims database, a state-based patient registry and a hospital pharmacy information management system. **RESULTS:** The first 18-month longitudinal analysis of the complete SCAP cohort reveals that the average total cost of health care services and medications per patient during the 18 months was AUD21,287 (€12,559). The most expensive component of the total costs was inhospital treatment (71%), followed by outpatient services (17%) and medications (12%). The average cost of medications dispensed to the subjects during the 18-month period was AUD2570 (€1516). Eighty percent of the subjects had medication costs of less than AUD5000. In contrast, 2.3% of subjects had costs greater than AUD10,000 (€5900) and accounted for 10% of the total medication costs. **CONCLUSIONS:** While medications remain an important part of the treatment strategy for people with schizophrenia, they are only a small proportion of the overall cost of care. The most expensive component is inhospital treatment.

PMH2

ANTIPSYCHOTIC USE PATTERNS AND HEALTHCARE COSTS FOR INDIVIDUALS WITH SCHIZOPHRENIA TREATED WITH HALOPERIDOL, OLANZAPINE OR RISPERIDONE IN A MEDICAID POPULATION

Ramsey JL[1], Hutchins D[2], Zhu B[1], Zhao Z[1], Gibson PJ[1], Lothgren M[3]

[1]Eli Lilly and Company, Indianapolis, IN, USA; [2]Advance PCS, Scottsdale, AZ, USA; [3]Eli Lilly and Company, Windelsham, Surrey, United Kingdom

OBJECTIVE: To evaluate medication use patterns and healthcare costs for individuals with schizophrenia treated with haloperidol, olanzapine or risperidone in a Medicaid program. **METHODS:** Medicaid recipients who were diagnosed with schizophrenia (ICD-9 295.XX) and began treatment with haloperidol (n = 302), olanzapine (n = 895), or risperidone (n = 479) between January 1997 and June 1997 were followed for 1 year. Medical service and pharmacy claims one-year prior and post-initiation were extracted and analyzed. Length of treatment, total and component healthcare costs were compared using regression models controlling for demographic and clinical characteristics and previous service and medication use. **RESULTS:** Compared to haloperidol and risperidone users, patients using olanzapine stayed on therapy significantly longer (+69 days vs. haloperidol, $p < .0001$; +29 days vs. risperidone, $p < .0001$). Olanzapine patients had higher antipsychotic medication costs (+$1269 vs. haloperidol, $p < .0001$; +$562 vs. risperidone, $p < .0001$) but lower psychiatric inpatient costs (–$1713 vs. haloperidol, $p = .02$; –$305 vs. risperidone, $p = 0.62$). There were no significant differences in total healthcare costs (–$304 vs. haloperidol, $p = .74$ and –$49 vs. risperidone, $p = .95$). **CONCLUSION:** Longer treatment duration, reductions in hospitalization costs and similar total costs associated with olanzapine treatment may be indicative of better patient outcomes.